ABSTRACT OF THE DISCLOSURE

A fast Fourier transform (FFT) operating apparatus and a method thereof operate the FFT corresponding to a kernel function unit of DMT (Discrete Multitone) and OFDM (Orthogonal Frequency Division Multiplexing) modems to transmit a data with high speed in a programmable processor capable of processing a high speed telecommunication algorithm in real-time by adopting advantages of the on-demand semiconductor based system and the programmable processor and applying to various standards by securing the design flexibility of the system.